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| **Learning will include the development of the following knowledge, concepts and skills** | | **Possible learning outcomes in**  **science** |
| **Transdisciplinary theme**  **Who we are**  An inquiry into the nature of the self; beliefs and values; personal, physical, mental, social and spiritual health; human relationships including families, friends, communities, and cultures; rights and responsibilities; what it means to be human.  **Central idea**  Our inheritance and experiences through our life cycle make us who we are.  **Key concepts**   * Change * Form   **Related concepts**   * Cycle * Heritage   **Lines of inquiry**   * Life cycles of human beings * Physical and cultural characteristics inherited from families | **Science strand(s)**  Living things  **Science skills**  a. Observe carefully in order to gather data  b. Use a variety of  instruments and tools to  measure data accurately  c. Use scientific vocabulary  to explain their  observations and  experiences  d. Identify or generate a  question or problem to be  explored  e. Plan and carry out  systematic investigations,  manipulating variables as  necessary  f. Make and test predictions  g. Interpret and evaluate  data gathered in order  to draw conclusions  h. Consider scientific  models and applications  of these models  (including their  limitations) | **The student will be able to:**  • Describe the life cycles of  a variety of living things  (for example, a range of  animals and plants)  • Compare the life cycles of  different living things  • Identify the common  components of life  cycles (for example,  birth, growth, maturity,  reproduction, death)  • Recognize that siblings look like parents   * Describe some characteristics inherited from parents to children |

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| **Learning will include the development of the following knowledge, concepts and skills** | | **Possible learning outcomes in**  **science** |
| **Transdisciplinary theme**  **Where we are in place and time**  An inquiry into orientation  in place and time; personal  histories; homes and journeys;  the discoveries, explorations  and migrations of humankind;  the relationships between  and the interconnectedness  of individuals and civilizations,  from local and global  perspectives.  **Central idea**  Exploring our surroundings we discover evidence from the past and the present.  **Key concepts**   * Connection * Function   **Related concepts**   * Evidence * Orientation   **Lines of inquiry**   * Evidence from the past in our city * Use of plans and maps for our special orientation * Physical changes in the landscape | **Science strand(s)**  Earth and space  **Science skills**  a. Observe carefully in order to gather data  b. Use a variety of  instruments and tools to  measure data accurately  c. Use scientific vocabulary  to explain their  observations and  experiences  d. Identify or generate a  question or problem to be  explored  e. Plan and carry out  systematic investigations,  manipulating variables as  necessary  f. Make and test predictions  g. Interpret and evaluate  data gathered in order  to draw conclusions  h. Consider scientific  models and applications  of these models  (including their  limitations) | **The student will be able to:**  • Identify the evidence that  the Earth has changed (for  example, land formations  in local environment)  • Investigate how buildings  and other structures have changed in their city |

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| **Learning will include the development of the following knowledge, concepts and skills** | | **Possible learning outcomes in**  **science** |
| **Transdisciplinary theme**  **How we express ourselves**  An inquiry into the ways in  which we discover and express  ideas, feelings, nature, culture,  beliefs and values; the ways in  which we reflect on, extend  and enjoy our creativity; our appreciation of the aesthetic.  **Central idea**  Human beings express themselves according to their culture.  **Key concepts**   * Perspective * Causation   **Related concepts**   * Sensation   **Lines of inquiry**   * Forms of artistic expressions * Ways of expression according to culture | **Science strand(s)**  Living Things  **Science skills**  a. Observe carefully in order to gather data  b. Use a variety of  instruments and tools to  measure data accurately  c. Use scientific vocabulary  to explain their  observations and  experiences  d. Identify or generate a  question or problem to be  explored  e. Plan and carry out  systematic investigations,  manipulating variables as  necessary  f. Make and test predictions  g. Interpret and evaluate  data gathered in order  to draw conclusions  h. Consider scientific  models and applications  of these models  (including their  limitations) | **The student will be able to:**  • Discover different sensations according to the part of the body being used |

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| **Learning will include the development of the following knowledge, concepts and skills** | | **Possible learning outcomes in**  **science** |
| **Transdisciplinary theme**  **How the world works**  An inquiry into the natural world  and its laws; the interaction  between the natural world (physical and biological) and human societies; how humans use their understanding of scientific principles; the impact of scientific and technological advances on society and on the environment.  **Central idea**  The comprehension of the relation between forces and movement can help us improve our lives.  **Key concepts**   * Causation * Function   **Related concepts**   * Force * Movement   **Lines of inquiry**   * Types of forces * Effects of forces * How forces can be used | **Science strand(s)**  Forces and energy  **Science skills**  a. Observe carefully in order to gather data  b. Use a variety of  instruments and tools to  measure data accurately  c. Use scientific vocabulary  to explain their  observations and  experiences  d. Identify or generate a  question or problem to be  explored  e. Plan and carry out  systematic investigations,  manipulating variables as  necessary  f. Make and test predictions  g. Interpret and evaluate  data gathered in order  to draw conclusions  h. Consider scientific  models and applications  of these models  (including their  limitations) | **The student will be able to:**  • Identify and describe  different types of forces  • Explain the effects of forces in different bodies  • Explain how forces are used in daily life |
| **Learning will include the development of the following knowledge, concepts and skills** | | **Possible learning outcomes in**  **science** |
| **Transdisciplinary theme**  **How we organize ourselves**  An inquiry into the interconnectedness of human-made systems and communities; the instruction and function of organizations; societal decision-making; economic activities and their impact on humankind and the environment.  **Central idea**  Human beings organize themselves into communities.  **Key concepts**   * Connection * Form   **Related concepts**   * Interaction * Community   **Lines of inquiry**   * Characteristics of a community * Roles in a community * Rules and agreements in a community | **Science strand(s)**  Living Things  **Science skills**  a. Observe carefully in order to gather data  b. Use a variety of  instruments and tools to  measure data accurately  c. Use scientific vocabulary  to explain their  observations and  experiences  d. Identify or generate a  question or problem to be  explored  e. Plan and carry out  systematic investigations,  manipulating variables as  necessary  f. Make and test predictions  g. Interpret and evaluate  data gathered in order  to draw conclusions  h. Consider scientific  models and applications  of these models  (including their  limitations) | **The student will be able to:**  • Examine interactions  between living things  of a community  • Describe the role living things have in a community |

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| **Learning will include the development of the following knowledge, concepts and skills** | | **Possible learning outcomes in**  **science** |
| **Transdisciplinary theme**  **Sharing the planet**  An inquiry into rights and  responsibilities in the struggle  to share finite resources with  other people and with other  living things; communities  and the relationships within  and between them; access to  equal opportunities; peace and  conflict resolution.  **Central idea**  As human beings we must share and conserve our natural resources.  **Key concepts**   * Function * Responsibility   **Related concepts**   * Resources * Sustainability   **Lines of inquiry**   * Renewable and non renewable natural resources * Distribution and availability of natural resources | **Science strand(s)**  Living Things  **Science skills**  a. Observe carefully in order to gather data  b. Use a variety of  instruments and tools to  measure data accurately  c. Use scientific vocabulary  to explain their  observations and  experiences  d. Identify or generate a  question or problem to be  explored  e. Plan and carry out  systematic investigations,  manipulating variables as  necessary  f. Make and test predictions  g. Interpret and evaluate  data gathered in order  to draw conclusions  h. Consider scientific  models and applications  of these models  (including their  limitations) | **The student will be able to:**  • Explain how human  activities can have positive  or adverse effects on local  and other environments  • Reflect on and self-assess  his or her personal use of  natural resources  • Identify or generate a  question or problem to  be explored in relation to  human impact on the local environment. |